

NORTH DAKOTA UNIVERSITY SYSTEM

Housing Management System

Post-Implementation Report

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INTRODUCTION

The Post-Implementation Report contains an analysis from the Post-Implementation Survey sent to various project team members. This survey was sent to the individuals who were most heavily involved in or performed a major role in the project. Individuals included members of the Steering Committee, Core Team, Vendor, Data Center staff, and Developer staff. Thirty-one individuals had been sent the survey and nine (29%) were returned.

Survey questions were rated on a scale of 1 to 3 with 1 being low and 3 high. Results were calculated based on all responses that were not listed as N/A. The rating was derived from the responses (1, 2, or 3) to each question answered divided by the total number of respondents. Each section was then scored based on all the questions answered in the section with a 1, 2, or 3 divided by the total number of respondents. The rating gives an indication of satisfaction and defines areas where improvements are needed.

Attached as an appendix (Appendix A) is a sample copy of the survey that was distributed to key project team members. This survey is being used on all projects to determine the effectiveness of project management.

A. SYSTEM EFFECTIVENESS

The Housing Management System successfully meets the needs of the NDUS Housing Offices. Survey responses indicated a general satisfaction with the system, but a couple responders commented on the difficulties with the learning curve associated with a new system. One responder stated, "The Housing Director is a great improvement for Housing management and reporting."

Overall Survey Rating:

2.88

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

B. COST, SCOPE, SCHEDULE, AND QUALITY MANAGEMENT

Throughout this project, project management processes were used to manage the costs, scope, schedule, and quality. Change control forms were used for changes and a Changes, Risks, and Issues Log was regularly maintained to track such items.

Project Cost

The project cost as of June 30, 2005, was less than had been budgeted. The majority of expenses had been incurred by then and the project was in its wrap-up phase. Original budget for this project was \$696,296.

	Original Budget	4/14/05 Revised	6/30/2005 Actual
Vendor Software & Implementation	\$360,900.00	\$373,425.00	\$364,373.37
Hardware	\$36,000.00	\$36,000.00	\$39,741.77
Software	\$22,500.00	\$35,937.56	\$30,095.39
Personnel	\$264,896.00	\$146,509.15	\$102,480.87
Other	\$12,000.00	\$12,000.00	\$21,869.19
Project Funded Exp.	\$696,296.00	\$603,871.71	\$558,560.59
Contingency		\$92,424.44	\$137,735.56
TOTAL	\$696,296.00	\$696,296.15	\$696,296.15

There were two additional requests for items to be funded from the contingency of this project. The first request was for web page development on the Housing Management System portal. The University of North Dakota Television Production Center was awarded the contract for this development at an estimated cost of \$12,300. The second request was for purchase of the Adirondack Solutions, Inc. utility module which the University of North Dakota needed for tracking electrical usage within campus housing areas. This purchase was approved at an estimated cost of \$6,200. While both of these requests were funded from the contingency, neither was considered to be part of the project implementation other than the actual purchase. Remaining funds would be returned to the ConnectND budget as the majority of the ConnectND budget, along with this project, was funded from Student Fees.

Project Scope

There were five Change Requests that were approved by the Housing Steering Committee during the project.

ID	Description	Impacts
1	This change request will add scope to the project to implement the new housing management system at the remaining six campuses. Although this is an expected transition for the project and is part of the original intent of NDUS, the addition will be analyzed and documented as a change request.	The impacts on the budget, schedule, and quality are minimal. The project plan and schedule will be updated.
2	ColdFusion, the software that creates the student web interface, was not ordered during the hardware/software ordering process due to a misunderstanding about its required use at the time.	Budget impact is \$13,000 from the "potential contingency" line. Schedule impacts are possible (regarding just the web interface features).
3	This change request will delay the completion of the Human Resource, Dining, Billing, Parking, Telecommunications, and Maintenance interfaces. Due to complexities with the development of all interfaces, there is not sufficient time to complete all of them for go-live on February 11, 2005. The Student interface is the only high priority interface needing to be completed for go-live.	Delaying interfaces will cause a schedule delay but will not affect go-live. Completion of interfaces will be incorporated into Phase 2 of the project along with implementation at remaining campuses.
4	This change request is to have the UND TV Production Center develop the headers/footers for the 11 NDUS institutional web pages.	The impact of this change is a cost of \$12,287.75 which is in contingency.
5	New functionality added to the Housing Director which will all tracking and billing of electrical usage.	Without this change, UND Housing Office would not be able to bill for electrical usage as they have been able to with legacy.

Project Schedule

The comparison summary of the baseline schedule against the actual schedule is shown below.

WBS ID #	Task Name	Baseline Start	Actual Start	Baseline Finish	Actual Finish
	NDUS HOUSING PROJECT	6/1/2004	6/1/2004	3/9/2005	5/18/2005
1	Initiating and Planning	6/1/2004	6/1/2004	9/17/2004	9/17/2004
2	Define Business Process and Setup System	7/7/2004	7/7/2004	11/30/2004	11/30/2004

3	Interfaces	8/23/3004	8/23/2004	12/1/2004	12/1/2004
4	Data Conversion Analysis	8/23/2004	8/23/2004	1/14/2005	1/18/2005
5	Business Process Testing, Procedures, plan go-live	11/1/2004	11/22/2004	2/1/2005	2/7/2005
6	Training	11/16/2004	11/15/2004	2/11/2005	2/11/2005
7	Go-live	1/18/2005	1/18/2005	2/14/2005	2/14/2005
8	Transition & Post Implementation	1/14/2005	1/26/2005	3/9/2005	5/18/2005
9	Project Controlling Activities	6/1/2004	6/1/2005	3/7/2005	3/31/2005

WBS ID #	Task Name	Baseline Start	Actual Start	Baseline Finish	Actual Finish
	NDUS Housing Project Phase 2	2/14/2005	2/11/2005	7/28/2005	6/30/2005
1	Phase 2 Planning	3/7/2005	3/7/2005	3/16/2005	3/16/2005
2	Remaining Interfaces – Develop and Test	2/14/2005	2/14/2005	2/14/2005	6/30/2005
3	Remaining Campuses - THD System Setup	2/11/2005	2/11/2005	5/23/2005	6/1/2005
4	Student Web Interface	3/8/2005	3/8/2005	6/30/2005	6/30/2005
5	Judicial Officer – System Setup for all campuses	3/9/2005	3/9/2005	6/17/2005	6/30/2005

The project met both Phase 1 (February 11-14, 2005) and Phase 2 (May 2 – 6, 2005) “go-live” dates; however, several milestone dates were missed along the way. The remaining wrap-up of the project along with the web interface will be completed as part of maintenance and the project is considered completed effective June 30, 2005.

Project Quality

Quality of the project was brought to fruition by the individuals that were involved in the project. A Quality Management Plan was devised and explained to the individuals involved. One individual stated, “I believe ‘Best Practices’ allowed everyone input but it also put everyone on the same page.”

Overall Survey Rating:

2.67

- Scale of 1 – 3, with 1 being low and 3 high

- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

C. RISK MANAGEMENT

Risks were managed through identification by the project team and tracked through use of a Risk Log. Risks that had been identified and during the course of the project became a reality were moved to an Issue Log where they were tracked, assigned to someone to resolve, and included the resolution or actions taken. Five items were identified as risks to be aware of with one becoming an issue. There were additional “issues” logged that were not identified risks; however, this is normal as the Issue Log allowed for closer tracking of those items.

The identified risk that had become an issue dealt with resource constraints due to the PeopleSoft project. Because the PeopleSoft project implementation was extended, development and other project staff were not available to develop interfaces between the Housing Management System and PeopleSoft in the timelines that had originally been planned. This caused a concern that the “go-live” might be impacted if not resolved. One member of the project team stated in their Post-Implementation survey, “I believe for what we were working with, the Risk Management log was essential to the success of the project.”

Overall Survey Rating:

2.73

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

D. COMMUNICATIONS MANAGEMENT

Several methods of communications were used on this project. A “kick-off” meeting was held which laid out the process early in the project so that team members had an idea of what to expect. Listservs were established for the Core Team and the Steering Committee. The Housing project had an advantage over some other projects in that many of the team members

from the different campuses had known each other and worked together in the past.

The Project Manager kept the teams informed and status reports were used to keep all stakeholders informed. One individual commented, "In many respects, the Project Status reports were the calm in the midst of a storm. We knew things needed to be done, and as we were performing as a team, the status reports helped guide us through to 'go-live' status." Another commented, "The project status was clearly laid out for the team. The format was simple but effective."

Overall Survey Rating:

2.79

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

E. ACCEPTANCE MANAGEMENT

The use of a formal process for signing off on deliverables is a must for ensuring that a project deliverable was tested and met the needs of the project members.

The project manager on this project provided summaries prior to presenting deliverable documents to the Project Team which they stated were helpful. One team member stated, "I liked the process because you clearly knew what was being asked. Approval was formalized so you knew the outcome."

Of those individuals who responded to the Post-Implementation survey, this section received the highest rating.

Overall Survey Rating:

3.0

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

F. ORGANIZATIONAL CHANGE MANAGEMENT

Preparing an organization for the change a project will have on them is one of the harder aspects of project management. For this section I've included below several of the comments that individuals stated in their Post-Implementation survey.

"The plan promoted proactive thinking." "The process was well thought through and orchestrated." "The Core Team leader did a great job leading the group to bring the dream to reality."

While there were positive comments, there were some that pointed out areas where more attention should have been given. "A few times, the impacts could have been defined quicker by the Core Team." "Training in the beginning could have been handled better. Those who attended the user conference were better prepared than those who did not attend."

The comments for this section show the importance of communications in preparing an organization for change.

Overall Survey Rating:

2.84

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

G. ISSUES MANAGEMENT

Issues that were identified were tracked through the use of an Issues Log. This log is a critical project management tool to ensure that someone has been assigned to resolve the issue, report on progress of the issue, and maintain a vigilance that the issue has been acted upon to resolution.

During the lifetime of the project implementation, eleven issues were logged with each having been resolved prior to "go-live."

Overall Survey Rating:

2.73

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

H. PROJECT IMPLEMENTATION AND TRANSITION

The transition from implementation to operational phase of this project went fairly smooth. This could be attributed to the efforts of the Core Team members, the vendor personnel, and the Project Manager. Most individuals involved on this project worked diligently to make the project “go-live” a success.

One comment made by one of the team members was, “Our strategy of early training and re-training prior to launch helped to keep people’s nerves calmed.”

The area of the Post-Implementation survey with the lowest consistent score in this section pertained to the effectiveness of the documentation received with the system.

Overall Survey Rating:

2.63

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

I. PERFORMANCE OF PERFORMING ORGANIZATION

Performance of the performing organization was rated the lowest of all sections in the Post-Implementation survey. Part of this can be attributed to the project coinciding with the PeopleSoft implementation. The PeopleSoft project stretched resources (in this case mainly personnel) thinly. This lack of resources caused slow resolution of tasks and was evident in comments expressed by team members on their Post-Implementation survey.

An example comment was “PeopleSoft is a challenge right now for everyone.”

Overall Survey Rating:

2.38

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

J. PERFORMANCE OF PROJECT TEAM

The efforts put forth by some of the Project Team members, vendor personnel, and the Project Manager made this a successful project. The consensus from the Post-Implementation survey was that not everyone participated and at times a few had to take up the slack and be responsible for keeping the project on task. This may have been due in part to responsibilities individuals had as their duties on campus. Some individual's time was taken up by their campus responsibilities. It was the strong leadership of a few that moved this project to success, keeping tasks on track and stepping in with additional effort when no one else was available.

Overall Survey Rating:

2.66

- Scale of 1 – 3, with 1 being low and 3 high
- Results are based on all responses that were not listed as N/A. Rating derived from points awarded divided by total number of respondents for this section of the survey.

K. KEY PROJECT METRICS

Cost

The original budget for this project, in new funds, was \$696,297 and with "in-kind" staffing support the total was \$796,177. The cost at completion was \$558,563 and with "in-kind" contributions the total was \$634,813.

There were three change orders that had a direct impact on the budget which were approved by the Steering Committee. These three changes increased the cost of the project by \$13,000 in one instance, \$6,200 in the second, and \$12,279 in the third.

One large part of the surplus in this budget was due to fewer individuals being involved as had originally been intended as Core Team members. The original budget included \$264,897 for personnel directly billed to the project; however, the actual cost was \$102,481.

The contingency remaining in this project will be used to fund additional hardware to support a third environment. It may also be used to fund a portion of the Facilities Management System interface budget shortfall since both of these systems are being funded by the same mechanism of student fees.

Schedule

The schedule remained on track as originally planned with completion of all institutions involved "live" by June 30, 2005.

Scope

The scope of the project had been changed as the Steering Committee approved development of the web interface for the eleven institutions (work performed by the University of North Dakota Television Production Center) and the purchase of the Adirondack Solutions, Inc. (system vendor) utility module needed by the University of North Dakota for tracking electrical usage in campus resident apartments. This capability was available, in part, on the legacy system which was decommissioned on September 30, 2005.

Quality

This project has met the anticipated benefits outlined in the original Business Case. The Adirondack Solutions, Inc., Housing Management System has been interfaced with the PeopleSoft system, has improved efficiencies, and enabled new functionality. Assignments for housing went smoothly for the campuses as assignments were made for students this past fall semester.

As the Housing staff becomes more familiar with their system, productivity will increase and the Housing department will be able to provide better services to those seeking campus housing. Comments from campus staff have been positive in the system's capabilities.

L. LESSONS LEARNED

Three questions were asked of the team members which reflects on lessons learned. These questions are listed below and comments are included with each.

What were the most significant issues on this project?

"Interfaces and PeopleSoft."

"Processes that were made to seem easy took signatures, time, and a lot of redoing."

"Working with other campus entities for authorization for the info we need to do business."

"There were no significant issues, only some things that needed to be worked out to get secure and appropriate access to the systems."

"Getting clearance for usage of social security, and GPA."

What were the lessons learned on this project (from things that didn't go well)?

"How important it is to have good people in leadership roles."

"The interfaces that needed to be done and the road blocks by PeopleSoft were challenging."

"Find out what needs to be signed before we start and to understand more of the technical end of things."

"Due to dependency between systems and networking, it would be beneficial to have design discussions together rather than separately."

"Do not understand the politics with IT assistance."

"Just remember, it's a team effort, and the team will continue to work together to achieve stated objectives."

What on this project worked well and was effective in the delivery of the system?

"We were lucky that our system was almost 'stand-alone' from PeopleSoft."

"The project management was very well done."

"I think the way the records are to get updated will be pretty nice once it works (needed fine tuning)."

"The lookup view also is a nice idea."

"The campus housing staffs working closely and well together."

"Good leadership on both the core team and steering committees, as well as, the project manager efficiency."

"Overall, the project went very well and is seen as a great success."

"A clear project manager model that gave timelines and updates."

"Open communications, we didn't have to worry about the upper administrators having a different agenda or people on the team who deliberately slow down the progress."

"The dynamics of the team was outstanding."

APPENDIX A

Purpose

The purpose of the Post-Implementation Survey is to collect feedback from project team members (the Steering Committee, Core Team, and Technical Team) about the success of the implementation. Survey responses will be summarized into a Post-Implementation Report, which will be available at a later date.

Instructions

1. Answer each question by entering a rating and comments. Please be honest and sincere. Your feedback will create valuable information for future NDUS projects and your individual responses will be kept confidential.
2. If you do not understand the question or it is not applicable to your role, enter N/A for a rating and N/A under comments.
3. There is a "General Questions" section on page 8 that is appropriate for general issues and lessons learned. This area should help you share information not covered in a specific question.
4. Contact Rich Lehn with any questions at 777-3756 or richlehn@mail.und.nodak.edu
5. Return the survey by **(DATE OF RETURN)** via email to Rich Lehn at richlehn@mail.und.nodak.edu
6. THANK YOU for your participation!!

Date:

Name:

Institution:

Department:

Role on Project:

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
SYSTEM EFFECTIVENESS		
1. How well does the system meet the stated needs of the NDUS?		
2. How well does the system meet your needs?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
3. When initially implemented, how well did the system meet the stated needs of the NDUS?		
4. To what extent were the objectives and goals outlined in the Business Case and Project Charter met?		
5. What is your overall assessment of the outcome of this project?		
6. How well did the scope of the project match what was defined in the Project Proposal?		
7. How satisfied are you with your involvement in the development and/or review of the Project Scope during Project Initiation and Planning?		
COST, SCOPE, SCHEDULE, AND QUALITY MANAGEMENT		
8. Was the Change Control process properly invoked to manage changes to Cost, Scope, Schedule, or Quality?		
9. Were changes to Cost, Scope, Schedule, or Quality, effectively managed?		
10. Was the established change budget adequate?		
11. As project performance validated or challenged estimates, was the change control process used when appropriate and were challenges effectively managed?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
12. How effectively was the Quality Management Plan applied during Project Execution?		
13. How effective was the quality assurance process?		
14. How effective were project audits?		
15. How effective was the utilization of Best Practices from prior projects in the NDUS and Institutions?		
RISK MANAGEMENT		
16. How well were team members involved in the risk identification and mitigation planning process?		
17. To what extent was the evolution of risks communicated?		
18. How effectively was the Risk Management Log updated or reviewed?		
19. How comprehensive was the Risk Management Log? (i.e. did many events occur that were never identified?)		
COMMUNICATIONS MANAGEMENT		
20. How effective were the informational materials available to orient team members?		
21. How satisfied were you with the kick-off meetings you participated in?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
22. How effectively were the project team meetings conducted?		
23. How effectively and timely were Progress Reports provided by Team Members to the Project Manager?		
24. How effectively were stakeholders involved in the project?		
25. Was communication with stakeholders (president, vice presidents, other directors, end users) adequate?		
26. How well were your expectations met regarding the frequency and content of information conveyed to you by the Project Manager?		
27. How well was project status communicated throughout your involvement in the project?		
28. How well were project issues communicated throughout your involvement in the project?		
29. How well did the Project Manager respond to your questions or comments related to the project?		
30. How useful was the format and content of the Project Status Report to you?		
31. How useful and complete was the project repository?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
ACCEPTANCE MANAGEMENT		
32. How effective was the acceptance management process?		
33. How well prepared were you to accept project deliverables?		
34. How well defined was the acceptance criteria for project deliverables?		
35. Was sufficient time allocated to review project deliverables?		
36. How closely did deliverables match what was defined within Project Scope?		
37. How complete/effective were the materials you were provided in order to make a decision to proceed from one project lifecycle phase to the next?		
ORGANIZATIONAL CHANGE MANAGEMENT		
38. How effectively and timely was the organizational change impact identified and planned for?		
39. How pro-active was the Organizational Change Management Plan?		
40. Was sufficient advance training conducted/information provided to enable those affected by the changes to adjust to and accommodate them?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
41. Overall, how effective were the efforts to prepare you and your organization for the impact of the new system?		
42. How effective were the techniques used to prepare you and your organization for the impact of the changes brought about by the new system?		
ISSUES MANAGEMENT		
43. How effectively were issues managed on the project?		
44. How effectively were issues resolved before escalation was necessary?		
45. If issue escalation was required, how effectively were issues resolved?		
46. How effectively were issues able to be resolved without impacting the Project Schedule or Budget?		
PROJECT IMPLEMENTATION & TRANSITION		
47. How effective was the documentation that you received with the system?		
48. How effective was the training you received in preparation for the use of the system?		
49. How useful was the content of the training you received in preparation for the use of the system?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
50. How timely was the training you received in preparation for the use of the system?		
51. How effective was the support you received during implementation of the system?		
PERFORMANCE OF THE PERFORMING ORGANIZATION (NDUS AND THE INSTITUTIONS)		
52. How effectively and consistently was sponsorship for the project conveyed?		
53. How smooth was the transition of support from the Project Team to the NDUS and Institutions?		
54. Did the Project Team adequately plan for and prepare the Institutions for their ongoing responsibilities for the product or service of the project?		
PERFORMANCE OF THE PROJECT TEAM		
55. Overall, how effective was the performance of the Project Manager?		
56. How well did the Project Team understand the expectations of their specific roles and responsibilities?		
57. How well were your expectations met regarding the extent of your involvement in the project (effort time commitments etc.)?		
58. How effective was each Project Team member in fulfilling his/her role?		

Questions	Rating (1 – 3) 1 is low and 3 is high	Comments (What worked well? What could have been done better? What recommendations do you have for future projects?)
59. How effective was team member training?		
GENERAL QUESTIONS		
60. What were the most significant issues on this project?		
61. What were the lessons learned on this project (from things that didn't go well)?		
62. What on the project worked well and was effective in the delivery of the system?		